

SEP 20 2004

PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
A collection of information unless it contains a valid OMB control number.

**Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.**

**Substitute for form 1449/PTO**

## **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

*(Use as many sheets as necessary)*

Sheet 1 of 1

<b>Complete if Known</b>	
Application Number	10/723,809
Filing Date	11/26/2003
First Named Inventor	Weissbach
Art Unit	1632
Examiner Name	
Attorney Docket Number	6818-66

U. S. PATENT DOCUMENTS

## **FOREIGN PATENT DOCUMENTS**

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>2</sup> -Number <sup>3</sup> * Kind Code <sup>4</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear
					T <sup>5</sup>

**Examiner  
Signature**

Date Considered

03/30/06

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **<sup>1</sup>Applicant's unique citation designation number (optional).** **<sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.** **<sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).** **<sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.** **<sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible.** **<sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.**

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.



AUG 13 2004

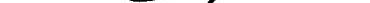
**Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.**

Approved for use through 07/31/2006. OMB 0651-0031  
**U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE**  
in a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<b>Complete If Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(Use as many sheets as necessary)</i>		Application Number	10/723,809
		Filing Date	11/26/2003
		First Named Inventor	Weissbach
		Art Unit	1632
		Examiner Name	
Sheet	1	of	12
		Attorney Docket Number	6818-66

U. S. PATENT DOCUMENTS

## **FOREIGN PATENT DOCUMENTS**

Examiner Signature		Date Considered	03/30/06
-----------------------	---	--------------------	----------

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **\*Applicant's unique citation designation number (optional).** **<sup>2</sup>** See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. **<sup>3</sup>** Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). **<sup>4</sup>** For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. **<sup>5</sup>** Kind of document by the appropriate symbol as indicated on the document under WIPO Standard ST.16 if possible. **<sup>6</sup>** Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.*

AUG 13 2004

PTO/SB/08B (08-03)

Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCEPATENT & TRADEMARK OFFICE  
JCAC

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	10/723,809
				Filing Date	11/26/2003
				First Named Inventor	Weissbach
				Art Unit	1632
				Examiner Name	
Sheet	2	of	3	Attorney Docket Number	6818-66

<b>NON PATENT LITERATURE DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
YV		Minetti, G., et al., "Reduction of Dabs-L-Methionine-dl Sulfoxide by Protein Methionine Sulfoxide Reductase from Polymorphonuclear Leukocytes: Stereospecificity towards the l-Sulfoxide," Ital. J. Biochem 43, 273-283 (1994)			
YV		Grimaud, R., et al., "Repair of Oxidized Proteins," J. Biol. Chem. 276, 48915-48920 (2001)			
YV		Rahman, M., et al., "High Level Expression and Purification of Peptide Methionine Sulfoxide Reductase in Escherichia Coli," Cellular & Molecular Biol. 38, 529-542 (1992)			
YV		Etienne, F., et al., "A Methionine Sulfoxide Reductase in Escherichia coli that Reduces the R Enantiomer of Methionine Sulfoxide," Biochem. & Biophys. Res. Comm. 300, 378-382 (2003)			
YV		Spector, D., et al., "New Membrane-associated and Soluble Peptide Methionine Sulfoxide Reductases in Escherichia coli," Biochem. & Biophys. Res. Comm. 302, 284-289 (2003)			
YV		Kita, Y., et al., "Enantioselective Total Synthesis of a Potent Antitumor Antibiotic, Fredericamycin A," J. Am. Chem. Soc. 123, 3214-3222 (2001)			
YV		Fukuyama, T., et al., "Stereocontrolled Synthesis of (-)-Hapalindole G," J. Am. Soc. 116, 3125-3126 (1994)			
YV		Conte, V., et al., "Asymmetric Oxidation of Thioethers. Enantioselective Synthesis of β-Hydroxysulfoxides by Direct Oxidation," Tetrahedron Lett. 30, 4859-4862 (1989)			
YV		O'Donnell, M., et al., "The Stereoselective Synthesis of α-Amino Acids by Phase-Transfer Catalysis," J. Am. Chem. Soc. 111, 2353-2355 (1989)			
YV		Hartley, A., et al., "Complex I Inhibitors Induce Dose-Dependent Apoptosis in PC12 Cells: Relevance			

Examiner Signature		Date Considered	04/11/2006
--------------------	--	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		Complete if Known			
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(Use as many sheets as necessary)</i>		Application Number	10/723,809		
		Filing Date	11/26/2003		
		First Named Inventor	Weissbach		
		Art Unit	1632		
		Examiner Name			
Sheet	3	of	3	Attorney Docket Number	6818-66

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			
YV		Rosen, D., et al., "Mutations in Cu/Zn Superoxide Dismutase Gene are Associated with Familial Amyotrophic Lateral Sclerosis," <i>Nature</i> 362, 59-62 (1993)			
YV		Weissbach, H., et al., "Peptide Methionine Sulfoxide Reductase: Structure, Mechanism of Action, and Biological Function," <i>Archives of Biochem. &amp; Biophys.</i> vol. 397, no. 2, 172-178 (2002)			
YV		Moskovitz, J., et al., "Methionine Sulfoxide Reductase (MsrA) is a Regulator of Antioxidant Defense and Lifespan in Mammals," <i>PNAS</i> , vol. 98, no. 23, 12920-12925 (2001)			
YV		Ruan, H., et al., "High-quality Life Extension by the Enzyme Peptide Methionine Sulfoxide Reductase," <i>PNAS</i> , vol. 99, no. 5, 2748-2753 (2002)			
YV		Ejiri, S., et al., "The Purification of Methionine Sulfoxide Reductase from <i>Escherichia coli</i> , <i>Anal. Biochem.</i> 102, 393-398 (1980)			
YV		Brot, N., et al., "Reduction of N-Acetyl Methionine Sulfoxide: A Simple Assay for Peptide Methionine Sulfoxide Reductase," <i>Anal. Biochem.</i> , 122, 291-294 (1982)			
YV		Moskovitz, J., et al., "Cloning and Expression of a Mammalian Gene Involved in the Reduction of Methionine Sulfoxide Residues in Proteins," <i>Proc. Natl. Acad. Sci.</i> , 93, 2095-2099 (1996)			

Examiner Signature		Date Considered	04/11/2006
--------------------	--	-----------------	------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.